Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the instant application:

Listing of Claims

Please **cancel claims 1-185** and replace with the following new claims 186-215:

Claims 1-185. (Cancelled)

186. (New) A method for identifying a compound that putatively modulates or elicits bitter taste in a human subject comprising:

(1) screening one or compounds in an assay that screens for compounds that activate or modulate the activity of a T2R polypeptide selected from the following:

(i) a human T2R polypeptide that has a sequence that is at least 90% identical to the T2R polypeptide contained in SEQ ID 4; and

(ii) a human T2R polypeptide that is encoded by a DNA that hybridizes to the T2R sequence of SEQ ID NO:3 under stringent hybridization conditions which are 50% formamide, 5X SSC and 1% SDS, incubating at 42 degrees C, with wash in 0.2X SSC and 0.1% SDS at 65 degrees C and which T2R polypeptide specifically binds to at least one bitter ligand that binds to the T2R polypeptide of SEQ ID NO:4; and

(2) identifying at least one compound that results in the activation of said T2R polypeptide or which modulates the activity of said T2R polypeptide.

187. (New) The method of claim 186 wherein said T2R polypeptide is at least 95% identical to the T2R polypeptide of SEQ ID NO:4.

188. (New) The method of claim 186 wherein said T2R polypeptide is at least 96% identical to the polypeptide of SEQ ID NO:4.

189. (New) The method of claim 186 wherein said T2R polypeptide is at least 97% identical to the polypeptide of SEQ ID NO:4.

190. (New) The method of claim 186 wherein said T2R polypeptide is at least 98% identical to the polypeptide of SEQ ID NO:4.

191. (New) The method of claim 186 wherein said T2R polypeptide is at least 99% identical to the polypeptide of SEQ ID NO:4.

192. (New) The method of claim 186 wherein said T2R polypeptide is identical to the polypeptide of SE ID NO:4.

193. (New) The method of claim 186 which further includes step (3) wherein the at least one identified compound is evaluated in a human taste test.

194. (New) The method of claim 186 wherein said T2R polypeptide is expressed by an isolated recombinant cell or non-human cell..

195. (New) The method of claim 194 wherein the isolated recombinant cell is selected from the group consisting of a mammalian cell, avian cell, insect cell, yeast, amphibian cell, bacterial cell, and an oocyte.

196. (New) The method of claim 194 wherein the isolated recombinant cell is selected from a Cos cell, HEK-293 cell, CHO cell, and an oocyte.

197. (New) The method of claim 186 wherein said T2R polypeptide is attached to a solid phase.

198. (New) The method of claim 196 wherein said T2R polypeptide is in solution.

199. (New) The method of claim 186 wherein said T2R polypeptide is in a lipid bilayer or a vesicle.

200. (New) The method of claim 186 wherein said T2R polypeptide is expressed on a cell membrane.

201. (New) The method of claim 194 wherein said cell expresses a G protein.

202. (New) The method of claim 200 wherein said G protein is Galpha15, Galpha16 or gustducin.

203. (New) The method of claim 185 wherein said assay includes the use of a label that facilitates the identification of said at least one compound that elicits or modulates the activity of said T2R polypeptide.

204. (New) The method of claim 203 wherein said label is an enzyme, radionuclide, chemiluminescent compound or fluorescent compound.

205. (New) The method of claim 185 wherein said assay screens for the effect of said at least one compound on the phosphorylation of said T2R polypeptide.

206. (New) The method of claim 185 wherein said assay screens for the effect of said at least one compound on a second messenger.

207. (New) The method of claim 206 wherein said second messenger is cAMP, cGMP or IP3.

208. (New) The method of claim 186 wherein said assay includes at least one voltage-sensitive or calcium sensitive dye that facilitates the identification of said at least one compound that induces or modulates the activity of said T2R polypeptide.

209. (New) The method of claim 186 which detects the effect of said at least one compound on G protein activation.

210. (New) The method of claim 186 wherein said assay detects the effect of said at least one compound on the activation of cGMP phosphodiesterase.

211. (New) The method of claim 186 wherein said assay is a fluorescence polarization or FRET assay.

212. (New) The method of claim 186 which detects the effect of said compound on adenylate cyclase activity.

213. (New) The method of claim 186 wherein said assay detects the effect of said at least one compound on transmitter or hormone release.

214. (New) The method of claim 186 which detects the effect of said at least one compound on cell current using a voltage-clamp or patch clamp technique.

215. (New) The method of claim 186 wherein the assay detects ligand dependent coupling of said T2R polypeptide with gustducin.